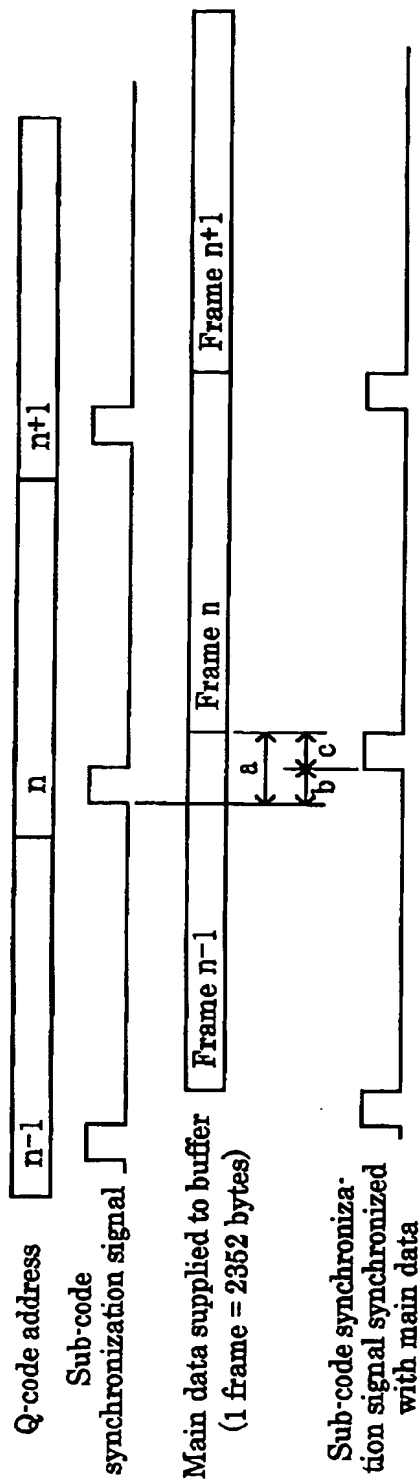


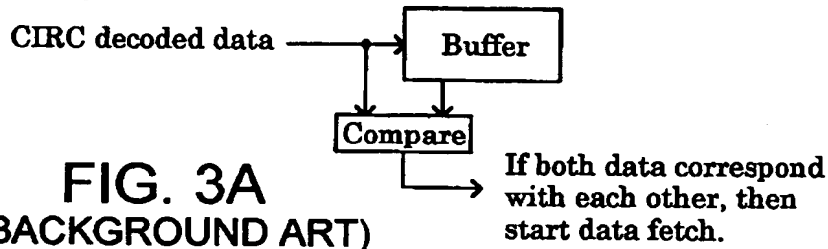
FIG. 1
 (BACKGROUND ART)



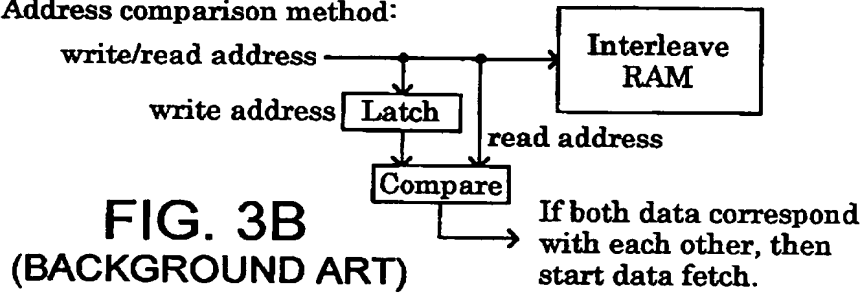
- a: Delay fluctuates with number of data stages stored in FIFO.
- b: Delay fluctuates with number of data stages stored in FIFO.
- c: Delay does not fluctuate with number of data stages stored in FIFO.

FIG. 2
 (BACKGROUND ART)

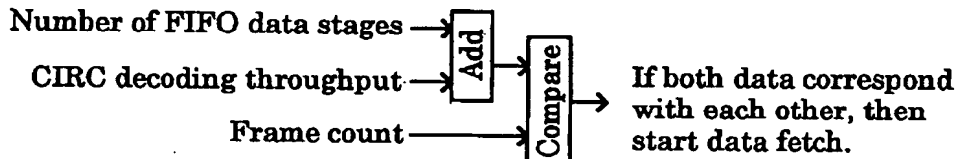
Data comparison method:



Address comparison method:



Data-timing prediction method:



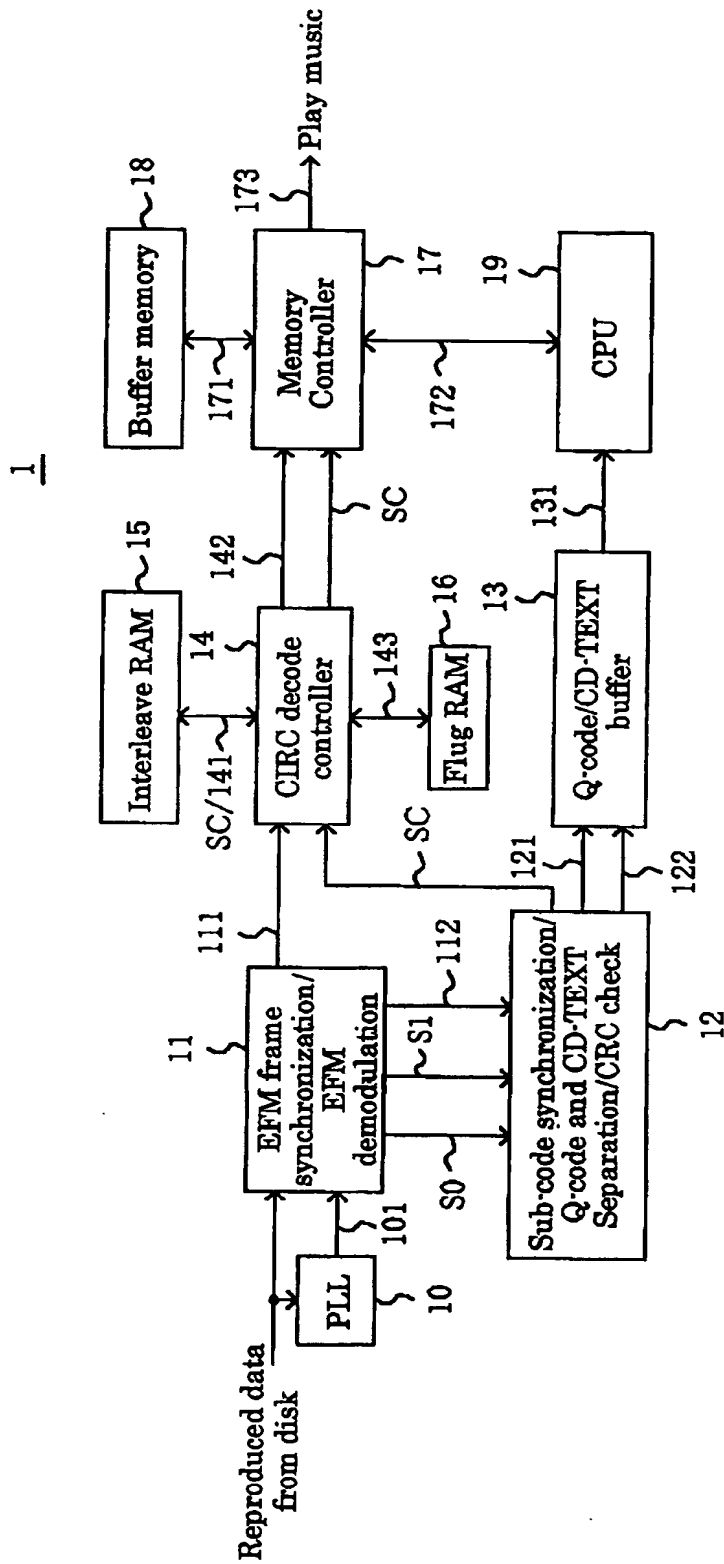


FIG. 4

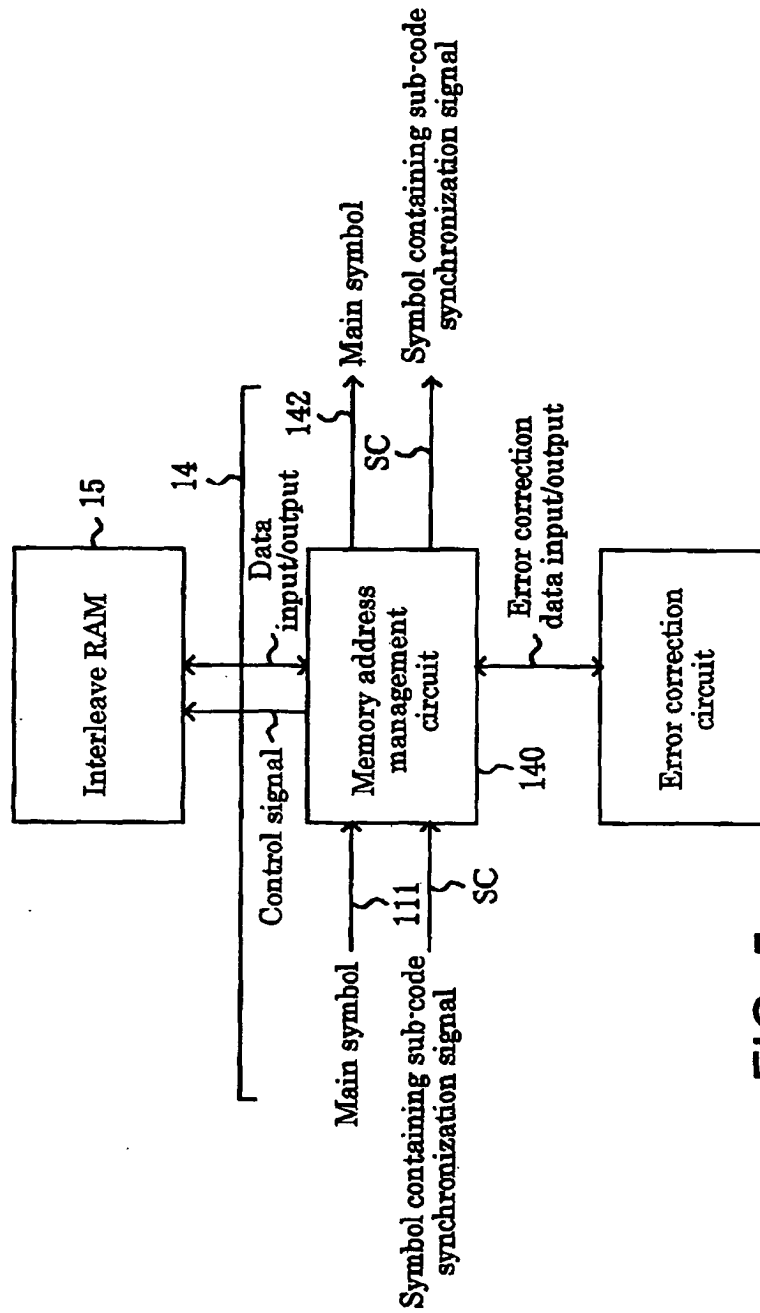


FIG. 5

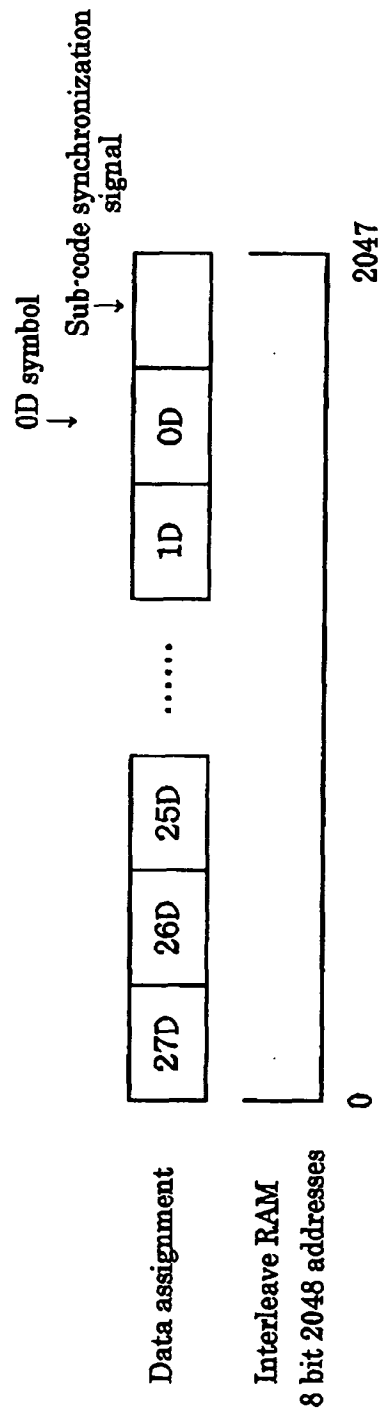


FIG. 6

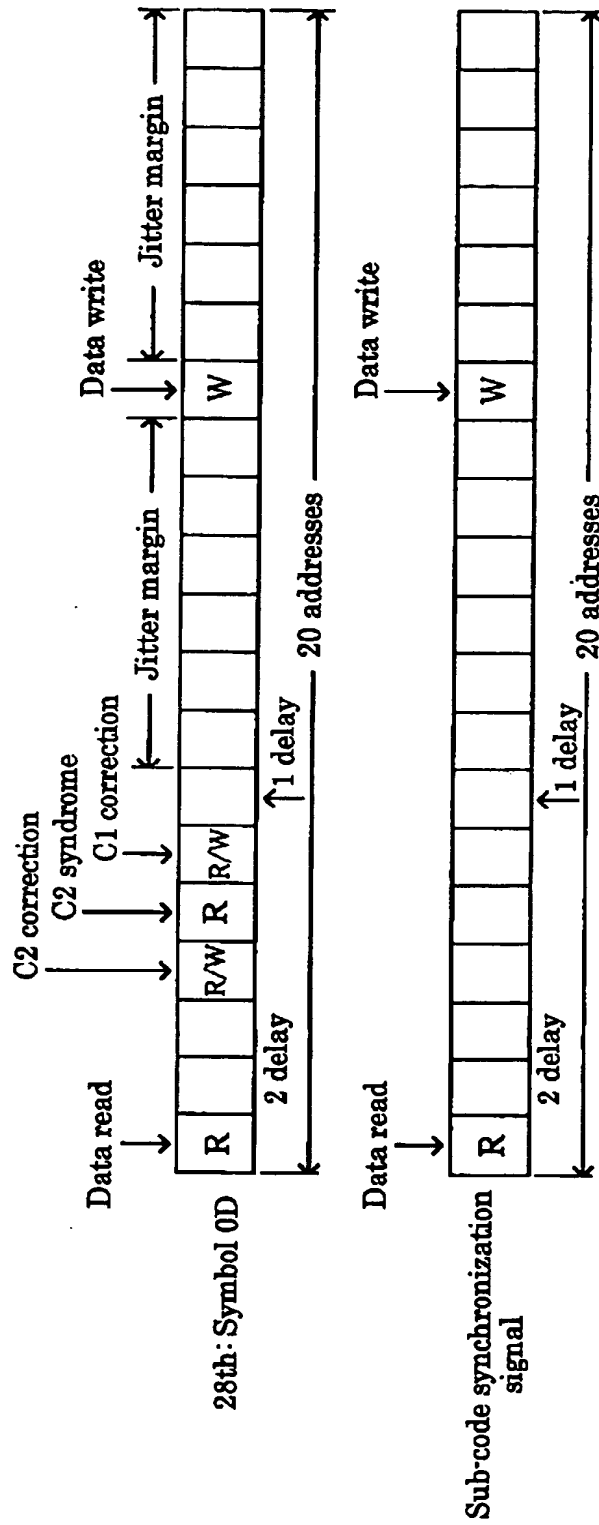


FIG. 7

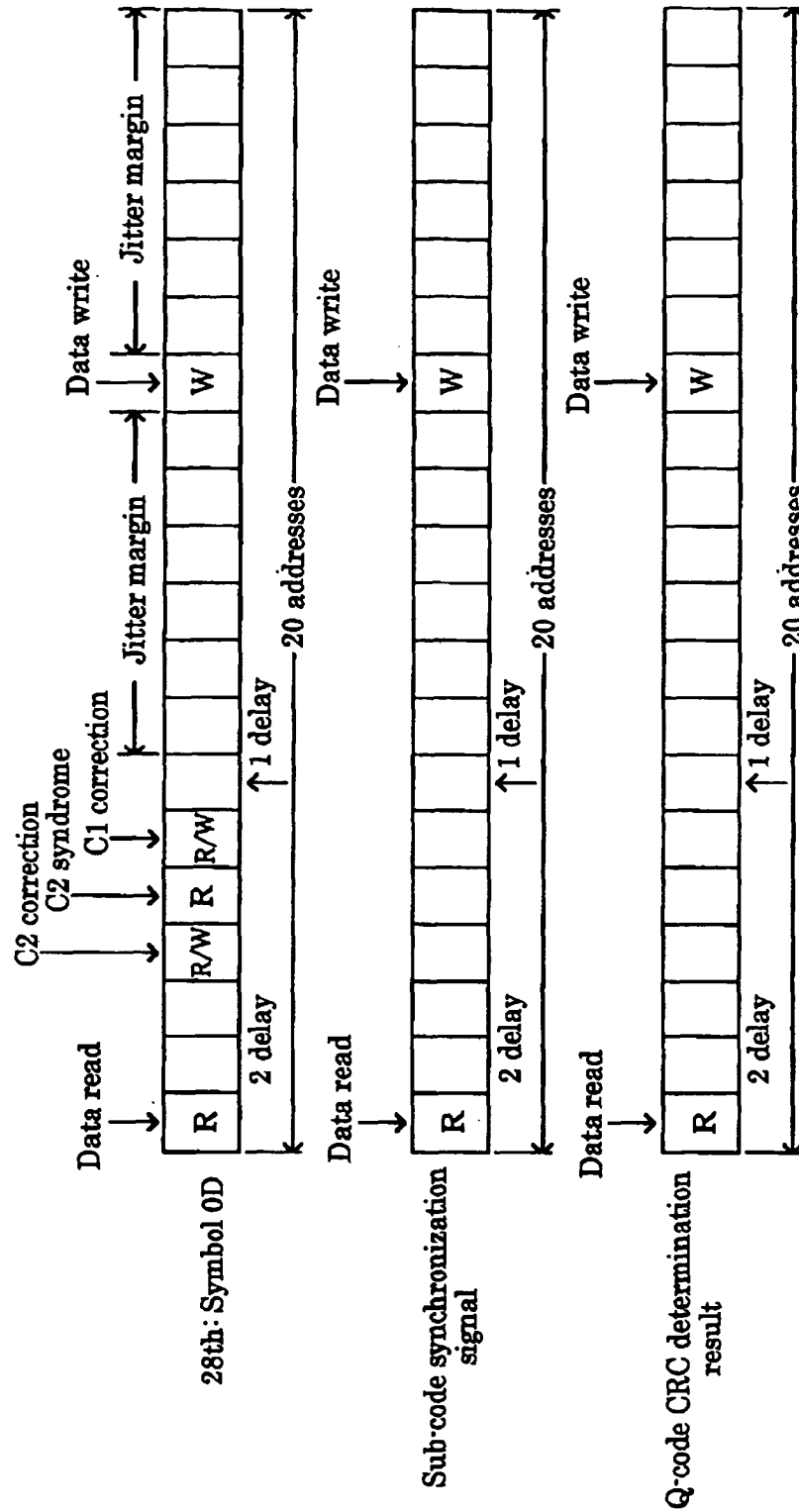


FIG. 8

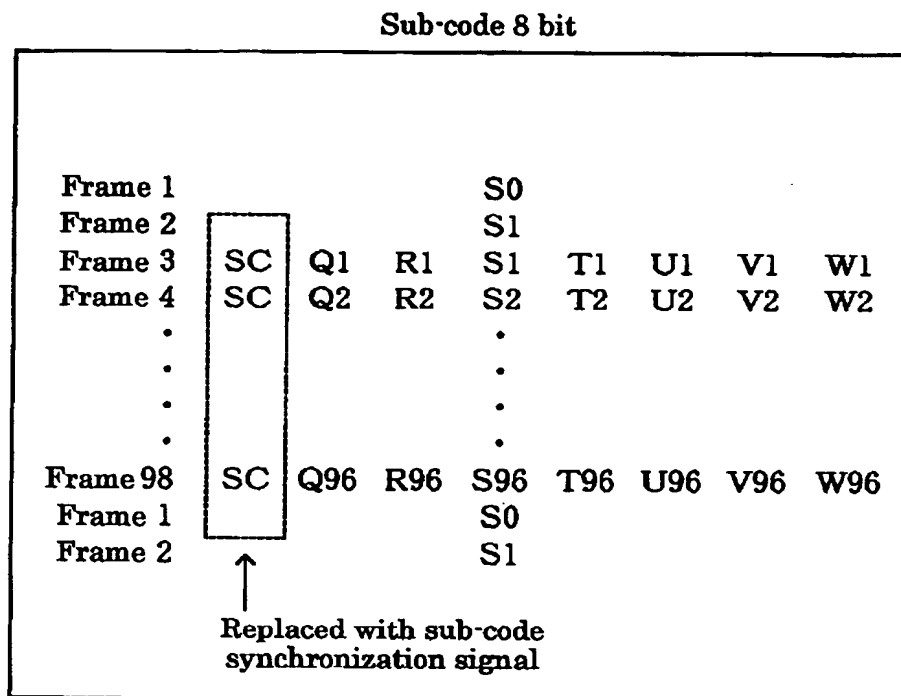


FIG. 9

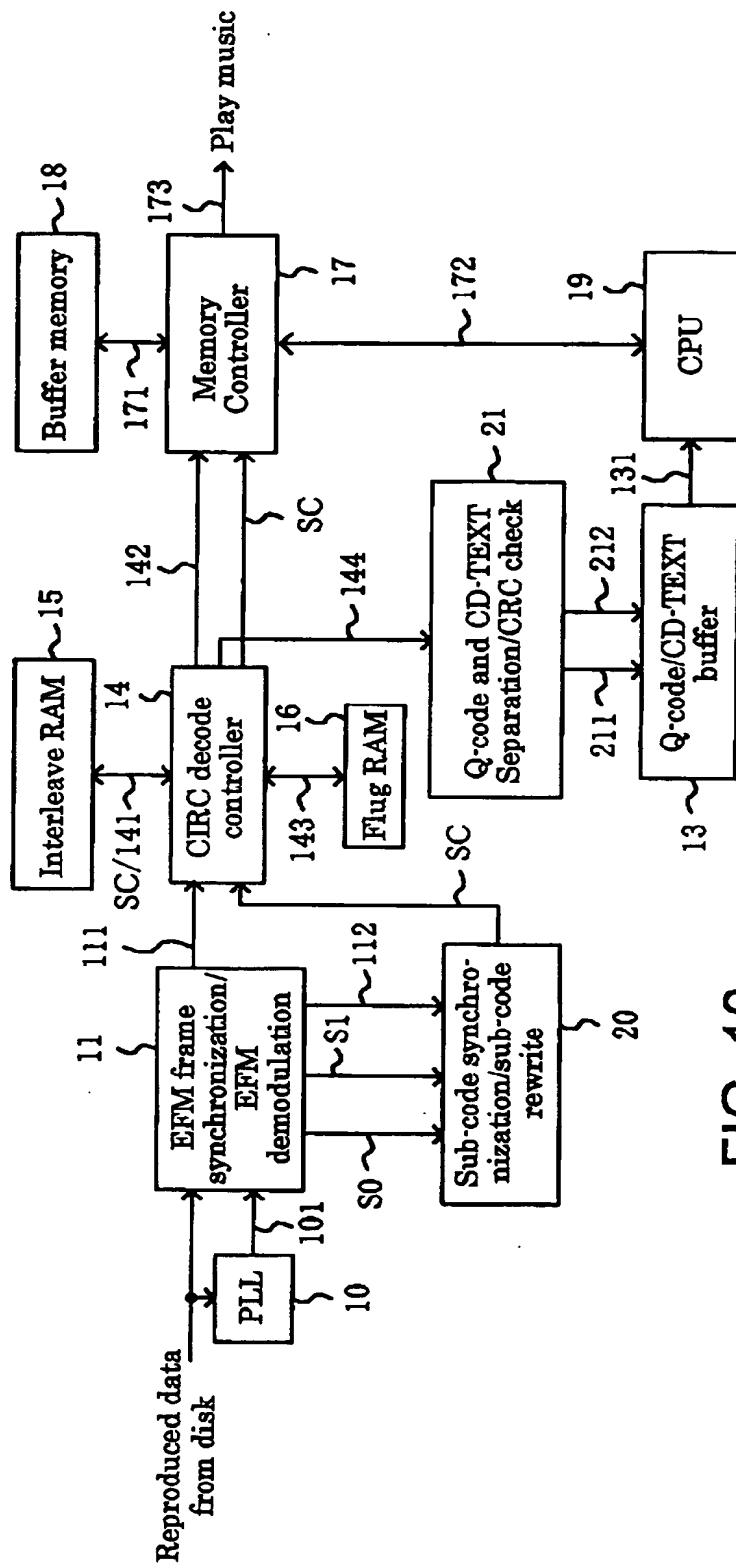


FIG. 10

R and W positions immediately after resetting (centered position)

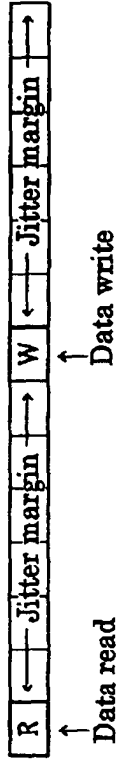


FIG. 11A

R and W positions immediately before overflow

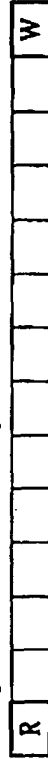


FIG. 11B

R and W positions immediately before underflow



FIG. 11C

When $R=W$, underflow occurs to immediately trigger centering of addresses. At address where $R=W$, no write is performed.

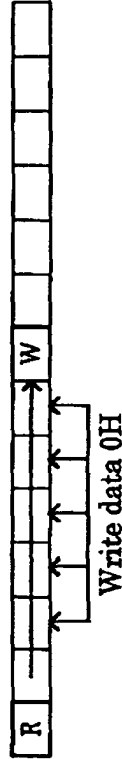


FIG. 11D

* Data at address to right of W before jump is obsolete (indefinite) data of adjacent symbol. To prevent reading out erroneous data at R, data 0H is written into address which is jumped.

In case of overflow, no indefinite data is read out at R.

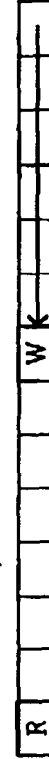


FIG. 11E

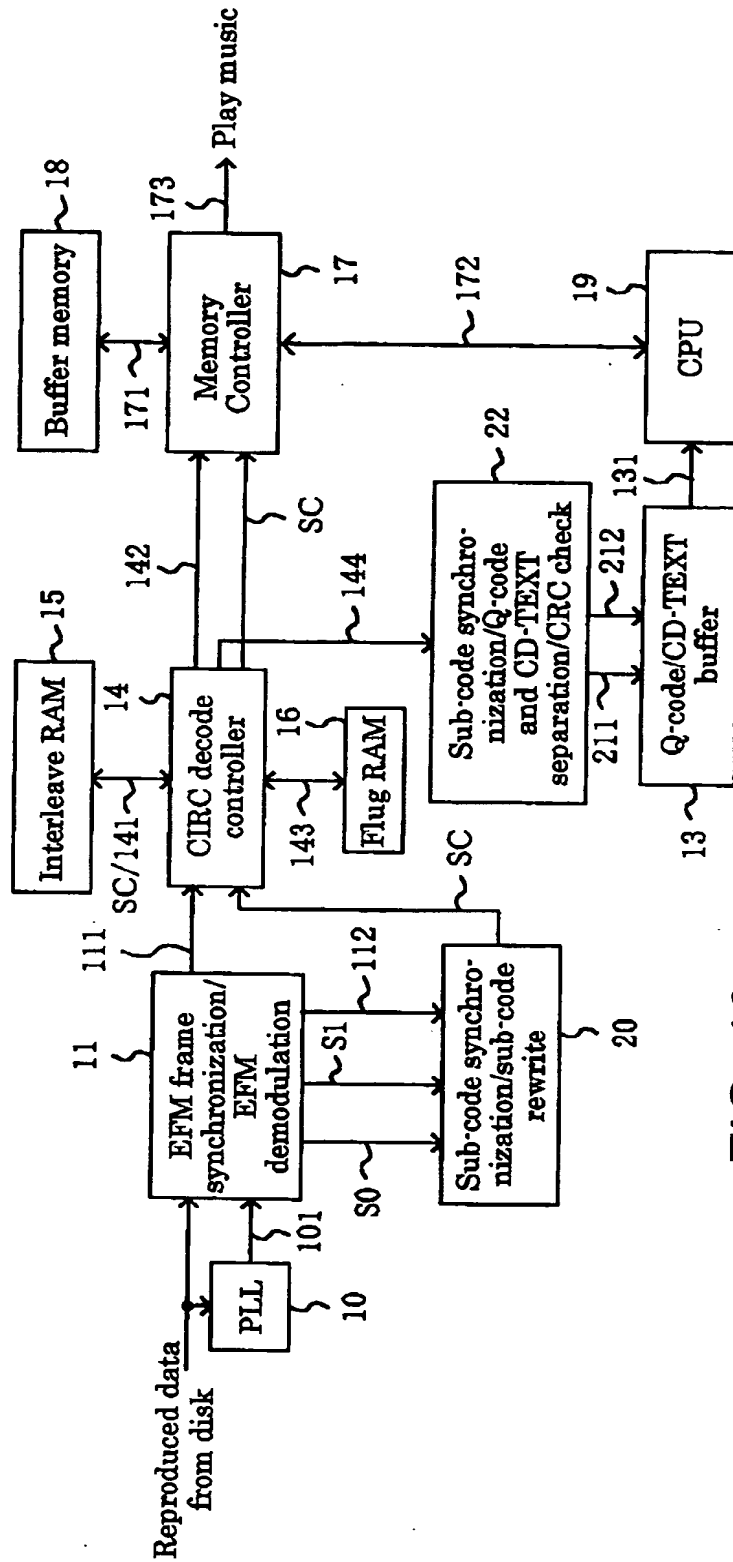


FIG. 12

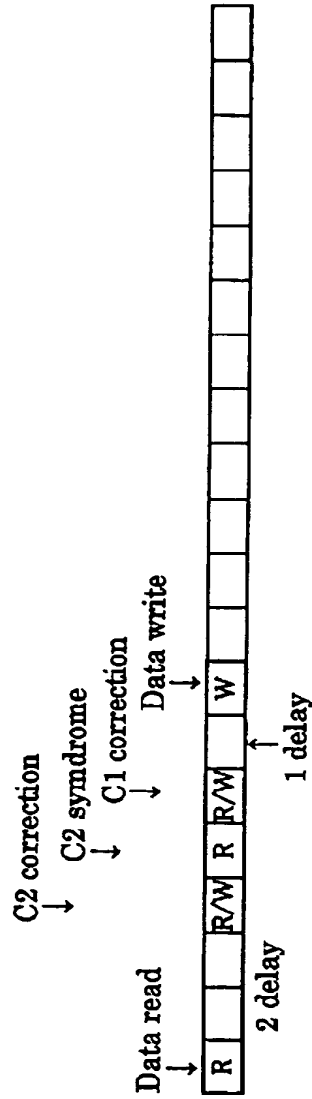


FIG. 13A

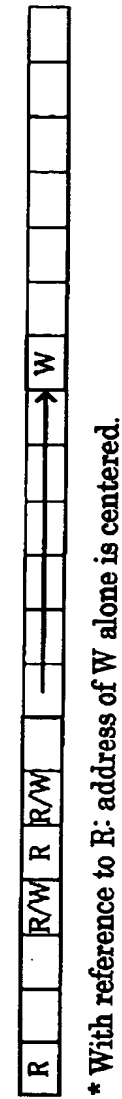


FIG. 13B

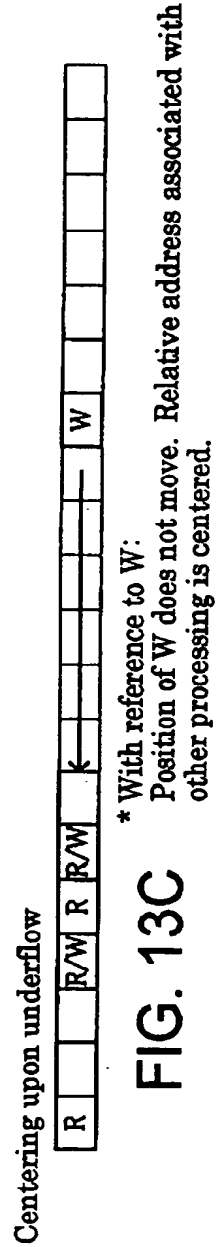


FIG. 13C

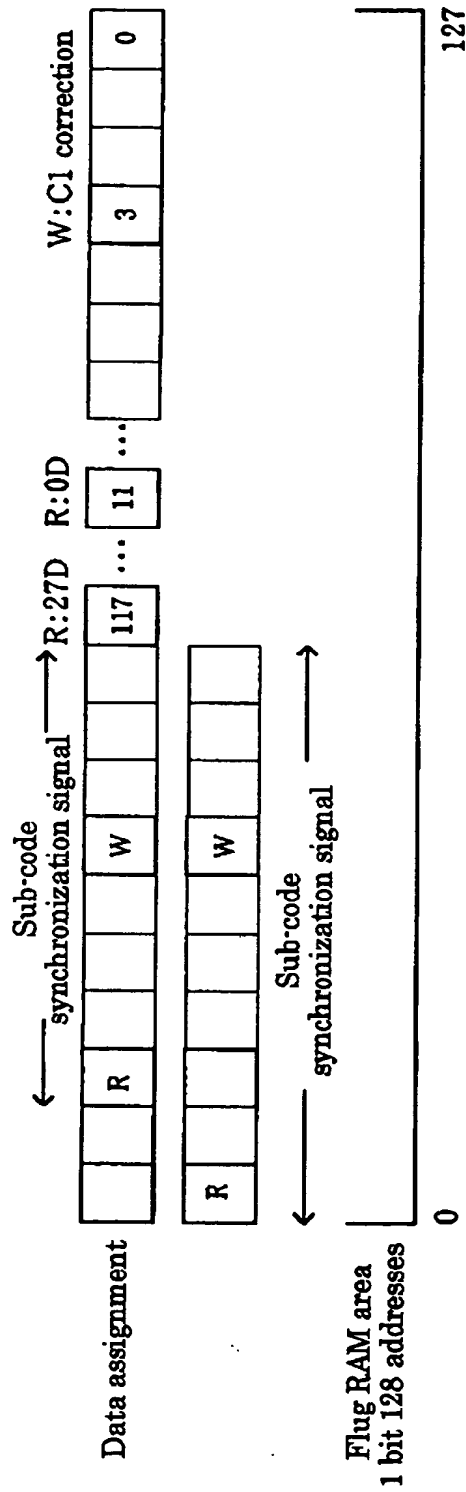


FIG. 14